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Examiner Christine Mui  
Group Art Unit: 1797

### **STATUS OF CLAIMS**

Claims 1-19 are presently pending in the application. Applicant has amended claim 3 in accordance with the Examiner's instructions. Applicant submits that no new matter has been added.

### **REMARKS**

Applicant acknowledges that based upon Applicant's arguments filed October 15, 2007, the Examiner has withdrawn the rejection of claims 1-18 under 35 U.S.C. §102 and 35 U.S.C. §103 and withdrawn the rejection of claim 7 under 35 U.S.C. §112, second paragraph. However, the Examiner has issued new grounds for rejection, as follows:

#### **Informalities**

In the Office Action, the Examiner noted the following informalities:

On page 4, in the first paragraph, "0,5" should be changed to "0.5."

On page 4, in the second paragraph, "0,2 to 3,0 mm" and "0,01 to 2,0 mm" should be changed to "0.2 to 3.0 mm" and "0.01 to 2.0 mm."

On page 4, in the third paragraph, "0,2 to 10 mm" should be "0.2 to 10 mm."

On page 8, in the first paragraph, "0,0 to 0,4" should be changed to "0.0 to 0.4."

In response, Applicant notes that these corrections were already made by Applicant in the Preliminary Amendment filed on October 5, 2004 (*see* paragraphs [0007] to [0009] of the specification, as amended in the Preliminary Amendment).

On page 4, in the second paragraph, the full meaning of the abbreviation "PTFE" should be recited as polytetrafluoroethylene.

On page 6, in the first paragraph, the full meaning of the abbreviation "PTFE" should be recited as polytetrafluoroethylene.

On page 4, in the second paragraph, the use of the trademark Teflon has been noted. The Examiner states that it should be capitalized wherever it appears and be accompanied by the generic terminology.

In response to these informalities, Applicant has amended paragraphs [0008] and [0018] of the specification in accordance with the Examiner's instructions.

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### Claim Objection

The Examiner objected to claim 3, stating that the full meaning of the abbreviation "PTFE" should be recited as polytetrafluoroethylene.

In response, Applicant has amended claim 3 in accordance with the Examiner's instructions.

### Rejection Under 35 U.S.C. §102(b)

Claims 1, 9, 12, and 15 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,821,585 ("Kempe II").

In response, Applicant respectfully traverses the rejection and their accompanying remarks. Kempe II does not teach all of the elements of the claims, either explicitly or inherently. For a reference to anticipate a claim it must disclose *each and every element of the claim*. See MPEP 2131 and cases cited therein, *especially Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) and *In re Marshall*, 578 F.2d 301, 304, 198 USPQ 344, 346 (Fed. Cir. 1978).

Applicant states that Kempe II fails as an anticipatory reference because it fails to teach all of the claimed elements of the present invention within the four corners of the reference. The invention of claim 1, the sole independent claim, is directed to:

A probe device for measuring the concentration of at least one volatile component in an aqueous solution, in particular for measuring the concentration of ethanol, comprising:

a probe body with an opening, which is tightly covered by a *flat membrane*, wherein said membrane is permeable for the volatile component, and  
a sensor for measuring the concentration of the volatile component, wherein said sensor is located inside said probe body and comprises a sensitive surface, which is located in a *first measuring space*, wherein an inner side of the flat membrane is part of a *second measuring space*,

wherein the first measuring space and the second measuring space are connected by a measuring aperture, and

wherein the first measuring space is connected to a carrier gas exhaust and the second measuring space is connected to a carrier gas supply.

(emphasis added).

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Kempe II does not anticipate the invention of independent claim 1. Specifically, Kempe II simply does not teach a *flat membrane*. Rather, it teaches a *tubular membrane*. This significance of this structural difference is specifically addressed by Applicant in the specification. Applicant teaches that unlike the prior art, "[t]he invention further allows using very sophisticated materials for the membrane since the membrane is formed *flat* and may be made from a sheet material. It is, in particular, *not necessary to make a tube*, like...the known carrier gas operated devices." (*see* paragraph [0008])(emphasis added). Indeed, the Examiner herself admits that Kempe II does not teach this claim feature, and states in the Office Action that Kempe II teaches "[a] *tubular permeation membrane*, formed, preferably of silicone tubing...pulled over the front zone of the external part of the tubing and the closing member, which is interpreted to form a tight seal against the plug-like member to tightly cover the opening of the probe body." There is simply no evidence in either in Kempe II or the Applicant's disclosure that lends support to the Examiner's conclusion that a *flat membrane* is the same as a *tubular membrane*. There is no evidence, either explicitly or inherent within the cited reference to support this conclusion. Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006), *cited with approval in*, *KSR Int'l v. Teleflex, Inc.*, 127 S. Ct. 1727, 1740-41, 82 USPQ 1385, 1396 (2007).

It would appear that the Examiner is simply assuming that a tubular membrane inherently teaches the claimed flat membrane. However, a holding of inherency must flow as a necessary conclusion from the prior art, not simply a possible one. The fact that a certain result or characteristic *may* occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 U.S.P.Q. 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized

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by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *In re Robertson*, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted); MPEP 2112 IV.

Based upon Examiner's own characterization of Kempe II and her statements that Kempe II teaches a "tubular membrane," Applicant states that a holding of inherency cannot flow as a necessary conclusion and instead, Kempe II and Applicant's disclosure both *teach away* from such a finding. Thus, Applicants submit that inherency has not been shown and respectfully requests that the Examiner reconsider and withdraw the rejection under 35 U.S.C. 102(b).

In addition, Kempe II fails to teach the claimed "first measuring space" and "second measuring space." Even if one were to agree for the sake of argument to the Examiner's expansive construction of the terms "first measuring space" and "second measuring space" to include the respective channels that the Examiner points to in the Kempe II reference, such channels of Kempe II would not be adopted within a probe device having a flat membrane as claimed. The reason is that the Kempe II reference provides no indication whatsoever that the respective channels can serve as specific measuring spaces connected by an aperture. Rather, they are simple flow channels arranged one after another.

Claim 1 is the sole independent claim, and the above comments apply directly to this claim. All other rejected claims 9, 12, and 15 are dependent directly on claim 1 and the rejection of those claims fails at least because of the fundamental defect discussed above.

**Rejection Under 35 U.S.C. §103(a)**

Claims 2-4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kempe II and further in view of U.S. Patent No. 5,979,219 ("Sellmer-Wilsberg").

Claim 5 is rejected over Kempe II, and further in view of U.S. Pat. No. 5,331,845 ("Bals").

Claims 6-8, 10-11, 13-14, and 19 are rejected as unpatentable over Kempe II.

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Claims 16-18 are rejected as unpatentable over Kempe II as applied to claim 12, above, and further in view of U.S. Patent No. 4,869,873 ("Klein").

In response, Applicant respectfully traverses the rejections and their accompanying remarks. Applicant asserts that the Examiner has not provided sufficient evidence to support a *prima facie* case of obviousness. For a reference or combination of references to support a *prima facie* case of obviousness, three basic criteria must be met: (1) there must be some suggestion and/or motivation to make the necessary modification of the teaching of the reference or references combined to result in the pending claims; (2) there must be a reasonable expectation of success; and (3) the prior art reference *must teach or suggest all the claim limitations*. MPEP § 2142-2143; *see In re Jones*, 958 F.2d 347, 351, 21 U.S.P.Q.2d 1941, 1943-44 (Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q. 1596, 1598-99 (Fed. Cir. 1988).

Kempe II, either alone or in combination with the various cited secondary references, fails to teach or suggest all of the claim limitations. As discussed above with respect to the anticipatory rejection of the claims over Kempe II, Kempe II is deficient and fails to teach, for example, a flat membrane as required by independent claim 1. The secondary references do not remedy this fundamental deficiency. Rather, each secondary reference is cited by the Examiner for purportedly teaching a dependent claim feature. For example, Sellmer-Wilsberg is cited for purportedly teaching a "permeable membrane consisting of at least two layers" of dependent claim 2-4. Bals is cited for purportedly teaching the "volume of the measuring spaces" of dependent claim 5. Klein is cited for purportedly teaching the "aspect of using radially oriented channels leading to a second measuring space" of dependent claims 16-18.

None of the references, however, correct the basic, fundamental deficiencies of the primary reference, Kempe II, in teaching the claimed invention, either by itself, or in combination with the cited secondary references. Having failed to do so, there is a failure in meeting the burden of establishing a *prima facie* case of obviousness.

Since the primary references, either singly or in combination with the secondary references fail to establish a *prima facie* case of obviousness, reconsideration and withdrawal of the rejections as being unpatentable over the cited references is therefore requested.

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For at least these reasons, it is respectfully submitted that claim 1 is patentable over the cited references. The remainder of the rejected claims depends upon claim 1 and are therefore patentable for at least the same reasons as is claim 1.

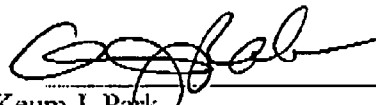
#### CONCLUSION

Applicant submits Claims 1-18 are in condition for examination, early notification of which is earnestly solicited. Should the Examiner be of the view that an interview would expedite consideration of this Amendment or of the application at large, request is made that the Examiner telephone the Applicant's attorney at (908) 518-7700 in order that any outstanding issues be resolved.

#### FEES

The Office is authorized to charge any fees required to deposit account number 50-1047.

Respectfully submitted,



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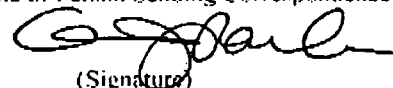
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